L 5258-66(A) EWT(l)/EWA(j)/EWA(b)-2 RO/JK

ACC NR: AP5022047 SOURCE CODE: UR/0286/65/000/014/0115/0116

AUTHORS: Shishkin, A. P.; Kudryavtsev, N. A.; Belozovskiy, A. B.; Oletina, R. I.; Butyrina, G. A.

ORG: none

TITLE: A filtering lifesaver. Class 61, No. 173126 [announced by the Branch of the Organization of the State Committee on Chemistry, SSSR (Filial predpriyatiya Gosudarstvennogo komiteta po khimii SSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 115-116

TOPIC TAGS: life support equipment, air conditioning system, respirator

ABSTRACT: This Author Certificate presents a filtering lifesaver containing a mouthpiece (mask), a corrugated hose, and a breathing box (see Fig. 1). To increase its protective ability and to simplify its construction, the lifesaver is provided with two perforated containers for sorbents such as hepcalite and a desiccant. These containers are hermetically sealed in the breathing box in such a way that the air to be inhaled passes through each container.

Card 1/2 UDC: 614.894

L 5288-66

ACC NR: AP5022047

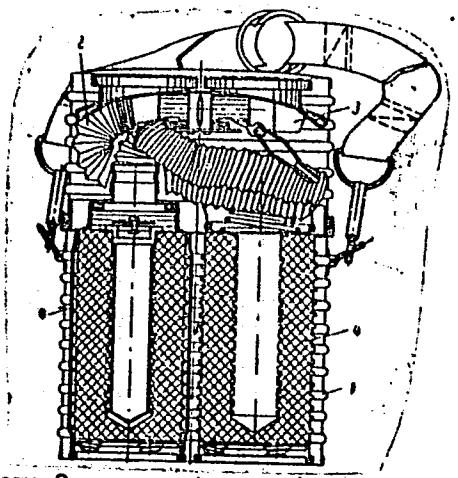


Fig. 1. 1- breathing box; 2- corrugated hose; 3- mouthpiece; 4- perforated containers

Orig. art. has: 1 figure.

SUB CODE: LS SUBM DATE: 18Jan64/ ORIG REF: 000 / OTH REF: 000

Card 2/2

BUTYRINA, Galina Yakovlevna; FRIDMAN, [illegible].M., red.

[Exercise therapy in burns] Lechebnaia fizkul'tura pri ozhogakh. Leningrad, Meditsina, 1965. 57 p. (MIRA 18:4)

SUSHKEVICH, N.I.; BUTYRINA, K.A.

Leptospirosis in Kaliningrad Province. Trudy Len.inst.epid.i mikrobiol. 23:251-255 '61. (MIRA 16:3)

1. Iz otdela osobo opasnykh infektsiy Kaliningradskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.
(KALININGRAD PROVINCE—LEPTOSPIROSIS)

BUTYRINA, K.G.; BUKIN, V.A.

New karst bridges and arches in the Pashiya-Chusovoy region. Peshchery no.3:73-74 '63. (MIRA 18:2)

BUTYRINA, K.G.

Six karst holes. Priroda 51 no.12:73 D '62. (MIRA 15:12)

1. Permskiy gosudarstvennyy universitet im. A.M. Gor'kogo.
(Perm Reservoir region—Karst)

SIVOGRAKOVA, K.A.; BASOVA, Yu.M.; BUTYRINA, N.P.; LYANDZBERG, G.Ya.

Special transparent colorless plastics. Biul.tekh.-ekon.inform.no.2: 15-16 '59. (MIRA 12:3)
(Plastics)

IAANDZBERG, German Yakovlevich; BAZLOVA, Tamara Petrovna; BUTYRINA, Natal'ya Petrovna; GOLUBEVA, Anna Vasil'yevna; PECHENKIN, Aleksandr Leont'yevich; SIVOGRAKOVA, Klavdiya Andreyevna; AL'PERIN, G.R., red.; FREGER, D.P., red. izd-va; GVIRTS, V.L., tekhn. red.

[New L-PT acrylic plastics for pressure modling and extrusion] Novyi akriloplast L-PT dlia lit'ia pod davleniem i ekstruzii. Leningrad, 1961. 21 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Sinteticheskie materialy, no.9) (MIRA 14:12)

(Plastics)

L 42047-65 EWT(m)/EPF(c)/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4 RPL RM/WW

ACCESSION NR: AP5010916 UR/0286/65/000/007/0102/0102

AUTHORS: Golubeva, A. V.; Sivograkova, K. A.; Butyrina, N. P.; Vlasova, L. D.

TITLE: A method for obtaining a casting plastic. Class 39, No. [illegible]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 102

TOPIC TAGS: plastic, casting, polymerization, methylmethacrylate, ethylacrylate, thermal stability, alpha methylstyrene, diisopropylxanthogen disulfide

ABSTRACT: This Author Certificate presents a method for obtaining plastic by copolymerization of methylmethacrylate with [illegible], and a modifier. To increase the thermal stability of the plastic, copolymerization is conducted in the presence of 2-2.5% of α-methylstyrene and 0.05-0.1% of diisopropylxanthogen disulfide.

ASSOCIATION: none

SUBMITTED: 16Jul62 ENCL: 00 SUB CODE: MT

NO REF SOV: 000 OTHER: 000

Card 1/1

BERG, S.L., polkovnik; VOROB'YEV, V.I., kapitan pervogo ranga; GIL'BO, G.M., kapitan pervogo ranga; ANANICHENKO, A.A.; BALAKSHINA, M.M.; BANNIKOV, B.S., kapitan vtorogo ranga; BAKHTINA, G.F.; BERENSHTAM, N.V.; BUTYRINA, N.Ya.; VOROB'YEV, V.I., kapitan pervogo ranga; GASS, I.P.; GINBYSH, N.S.; GLADIN, D.F., polkovnik; GOLOVANOVA, L.G., kand. ist. nauk; GOLUBEVA, Z.D., kand. filol. nauk; GONCHAROVA, A.I.; ZANADVOROVA, R.N.; IVANOVA, N.G.; KARAMZIN, G.B.; KOVAL'CHUK, A.S.; KRONIDOVA, V.A.; LITOVA, Ye.I.; MOLCHANOVA, T.I.; OKUN', L.S.; POCHEBUT, A.N.; RAYTSES, V.I.; SAVINOVA, G.N.; SENICHKINA, T.I.; SKRYNNIKOV, R.G., kand. ist. nauk; FURAYEVA, I.I.; CHIZHOVA, N.N.; YASINSKAYA, L.F.; GLADIN, D.F., polkovnik; LABETSKIY, Ye.F., podpolkovnik; LEBEDEV, S.M., kapitan pervogo ranga; ORDYNSKIY, N.I., kapitan pervogo ranga; NADVODSKIY, V.Ye., podpolkovnik; DEMIN, L.A., inzh.-kontr-admiral, glav. red.; FRUMKIN, N.S., polkovnik, zam. otv. red.; LEVCHENKO, G.I., admiral, red.; BAKHTINA, G.F., tekhn. red.

[Naval atlas] Morskoi atlas. n.p. Izd. Glavnogo Shtaba Voenno-Morskogo Flota. Vol.3. [Naval history] Voenno-istoricheskii. Pt.1. [Text for the maps] Opisaniia k kartam. 1959. xxii, 1942 p. (MIRA 15:5)

1. Russia (1923- U.S.S.R.) Ministerstvo oborony. (Naval history)

L 43899-66 EWT(m)/T/EWP(j) IJP(c) WW/RM

ACC NR: AP6015657 SOURCE CODE: UR/0413/66/000/009/0072/0073

INVENTOR: Sivograkova, K. A.; Butyrina, N. P.; Lovyagina, L. D.

ORG: none

TITLE: Method of obtaining a light-scattering organic glass. Class 39, No. 181276 [announced by State Scientific Research Institute of Polymerized Plastics and Experimental Plant (Gosudarstvennyy nauchno-issledovatel' skiy institut polimerizatsionnykh plastmass i eksperimental' nyy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 72-73

TOPIC TAGS: organic glass, polymethylmethacrylate, light scattering, copolymer, ~~opacifier~~, glass ~~opacifier~~

ABSTRACT: An Author Certificate has been issued for a method of obtaining a light-scattering organic glass with a base of polymethylmethacrylate by blending it with an opacifier, followed by granulation. To increase the strength of the organic glass and to improve its casting and light-scattering properties, a mixture of trifluorochloro-

Card 1/2 UDC: 678.744.335-196.2:678.473.2

L 43899-66

ACC NR: AP6015657 2

ethylene copolymer with vinylidene fluoride and barium sulfate is used as the opacifier. [Translation] [NT]

SUB CODE: 11/07/ SUBM DATE: 09Nov64/

Card 2/2

BUTYRINA, P. F.

"Wild Feed Grasses of Sakhalin," Korm. baza, 2, No.12, 1952

1. BUTYRINA, P. F.

2. USSR (600)

4. Sheep

7. Work practice of leading shepherds. Dost. sel'khoz. no. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

BUTYRINA, P. S.

ABESSALOMOV, I. S. Candidate of Veterinary Sciences
BUTYRINA, P. S. Junior Scientific Coworker, Omsk Scientific Research Veterinary Institute.
An attempt at treating mating disease of horses with sovarsen.

Source: Veterinariya; 25; 6; June 1948; uncl
TABCON

BUTYRINA, P., S.,

USSR/Medicine - Sulfonamides Jan 51
Animals, Diseases

"Treatment of Diarrhea in Young Animals With 'Sultsimid' (Sulfonamide 100)," P. S. Butyrina, Vet Phys, I. A. Fisenko, Vet Phys, Siberian Zone Sci Res Vet Inst

"Veterinariya" No 1, pp 45, 46

Discusses results of treating with various doses of sultsimid, 6 foals with diarrhea and 18 calves which had developed profuse diarrhea after infection for testing activity of various vaccines against paratyphoid. All cases with exception of 1 calf recovered within few days.

173T73

LC

BUTYRINA, P. S.

PA 193T80

USSR/Medicine (Veterinary) - Infectious Diseases Dec 51

"Chemotherapy and Chemoprophylaxis of Adenitis Equorum With Sul'tsimid (S-100)," P. S. Butyrina, Jr Sci Assoc, Siberian Zonal Sci Res Vet Inst

"Veterinariya" Vol XXVIII, No 12, pp 31, 32

Found that S-100 exerts in vitro a bacteriostatic or bactricidal effect on Streptococci equi, depending on the concn. S-100 cures mice infected with Str. equi. Clinical tests on horses showed that S-100 has a good therapeutic effect in cases of Adenitis Equorum (a disease produced by Str. equi) and that it is well tolerated by foals.

LC

193T80

BUTYRINA, P.S., kandidat veterinarnykh nauk.

Eliminating tuberculosis in poultry at the Irtyshskii State Farm. Veterinariia 33 no.10:29-32 O '56. (MLRA 9:10)

1. Sibirskiy Nauchno-issledovatel'skiy veterinarnyy institut.
(Tuberculosis in poultry)

BUTYRINA, Praskov'ya Sergeyevna, kand. veter. nauk; zasl. veter. vrach RSFSR; SELIVANOVA, A.S., kand. veter. nauk; POLIVAYEVA, N.V., red.; DEYEV, P.G., tekhn. red.

[Poultry diseases and their control] Bolezni ptits i mery bor'by s nimi. Omsk, Omskoe knizhnoe izd-vo, 1962. 133 p. (MIRA 17:1)

BUTYRSKIY, G.G., inzhener; VEYTSMAN, R.I., inzhener.

Characteristics of damper lashing wire action in case of tangential vibrations of moving blade sections of the turbines. Energomashinostroenie no.8:11-13 Ag '56. (MLRA 9:10)

(Steam turbines)

BUTYRSKIY, G.G., inzh.; VEYTSMAN, R.I., inzh.

Lateral vibration of steam-turbine condenser tubes. Energomashinostroenie 4 no.8:45-48 Ag '58. (MIRA 11:11)
(Condensers(Steam)--Vibration)

BUTYRSKIY, I.I., inzh.; TALANOV, V.I., starshiy elektromekhanik

Vehicle-mounted reel attachment for winding wires. Avtom., telem. i sviaz' 5 no.5:28 My '61. (MIRA 14:6)

1. Charskaya distantsiya signalizatsii i svyazi Kazakhskoy dorogi (for Butyrskiy).

(Electric lines—Poles)

BUTYRSKIY, N.A. (g. Noginsk).

Method of solving problems related to molarity of solutions. Khim.v shkole no.5:53-56 S-O '53. (MLRA 6:9)
(Solution (Chemistry))

BUTYRSKIY, N.A., prepodavatel'; DMITRIYENKOKO, G.V., red.; MIRONTSEVA, M.I., tekhn. red.

[Teaching chemistry in normal schools] O prepodavanii khimii v pedagogicheskikh uchilishchakh. Moskva, Uchpedgiz, 1954. 77 p. (MIRA 16:7)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye podgotovki uchitelei. 2. Noginskoye peduchilishche Moskovskoy oblasti (for Butyrskiy).

(Chemistry--Study and teaching)

RADILOV, S.V., inzh.; POPRUGO, S.M., inzh.; Prinimali uchastiye:
VASIL'YEV, G.A., inzh.; BUTYRSKIY, S.I., tekhnik

Automatic skip lifting. Mekh. i avtom. proizv. 17 no.8:11-13
Ag '63. (MIRA 16:10)

Butyrskiy, V.

ZLOTIN, B.; BUTYRSKIY, V., starshiy ekonomist.

Changes are made in title records. Fin.SSSR 18 no.9:69 S '57. (MIRA 10:10)

1. Upravlyayushchiy Azerbaydzhanskim kommunal'nym bankom (for Zlotin).

(Azerbaijan--Construction industry--Finance)

1. NEVSKII, Ye. G., Eng.; BUTYRSKIY, Yu. N.

2. USSR (600)

4. Lumbering

7. New tractor winch for rafting operations. Mekh. trud. rab. 7, No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

BUTYSIN, Andrey Yakovlevich; SHVEYTSER, Ye.K., red.; MURASHOVA, V.A., tekhn. red.

[The economic law of socialist accumulation]Ekonomicheskii zakon sotsialisticheskogo nakopleniia. Moskva, Vysshaia shkola, 1962. 93 p. (MIRA 15:10)

(Capital)

VESELOVSKAYA, T.K.; MACHINSKAYA, I.V.; BUTYUGIN, S.M., retsenzent; VASIL'YEV, S.V., retsenzent; BELOV, V.N., prof., red. [deceased]; FEDOROVA, T.P., red.; SHVETSOV, S.V., tekhn. red.

[Problems and exercises in organic chemistry] Zadachi uprazhneniia po organicheskoi khimii. Pod red. V.N.Belova. Petrozavodsk, Rosvuzizdat, 1963. 154 p. (MIRA 16:11)
(Chemistry, Organic--Problems, exercises, etc.)

ZHOMOV, A.K.; KHOLDYAKOV, N.I.; FEDINA, V.V.; BUTYUGIN, S.M.

Dehydrocyclization of a low-octane fraction of Korobkovka petroleum on an aluminum-chrome catalyst with reduction of the chromous oxide content. Izv. vys. ucheb. zav.; neft' i gaz 7 no.11:51-54 '64. (MIRA 18:11)

1. Vsesoyuznyy zaochnyy politekhnicheskiy institut.

Бутюгин В.К.

AUTHORS: Krykov, Yu.B., Butyugin, V.K., Liberov, L.G., Stepanova, N.D. and Bashkirov, A.N.

TITLE: The use of radioactive carbon for the investigation of the behaviour of methane under conditions of the synthesis of hydrocarbons from CO and H_2 on iron catalysts. (Ispol'zovaniye radioaktivnogo ugleroda dlya issledovaniya povedeniya metana v usloviyakh sinteza uglevodorodov iz CO i H_2 na zheleznykh katalizatorakh). 65-6-4/13

PERIODICAL: "Khimiya i Tekhnologiya Topliva i Masel" (Chemistry and Technology of Fuels and Lubricants) 1957, No.6, pp.26-33 (USSR).

ABSTRACT: A critical survey of the literature on the problem of the role of methane in the synthesis of hydrocarbons from CO and H_2 is given. An experimental investigation of the above problem was carried out using methane containing radioactive C^{14}. Radioactive methane was obtained by hydrogenating $C^{14}O_2$ over an $Bi-Al_2O_3$ catalyst and $C^{14}O_2$ was obtained by decomposing a mixture of $BaCO_3 + BaC^{14}CO_3$ with sulphuric acid. The apparatus used for the synthesis of hydrocarbons is described and shown in a diagram. The catalyst used was developed in the Petroleum Institute of

Card 1/3

The use of radioactive carbon for the investigation of the behaviour of methane under conditions of the synthesis of hydrocarbons from CO and H_2 on iron catalysts. (Cont.)

65-6-4/13

the Academy of Science of the U.S.S.R., its composition $Fe_3O_4 + 10(AL_2O_3 + SiO_2) + K_2O$ with an addition of chromium (ref 24). It was obtained by the melting of magnetic iron oxide with activators and crushing the mass produced to 2-3 mm size. Before application the catalyst was reduced in a stream of hydrogen at 1000 C for 1.5 hours. In order to obtain a high activity and stability it was also treated for 18-20 hours at 300 C and 20 atm. pressure with the synthesis gas $CO + H_2$ (1:1) passed with a volume velocity of 1500 hr^{-1}. Some preliminary experiments indicated that a good reproducibility of results was obtained. Typical results are given in tables 2 and 3 and in table 5 results of an experiment with radioactive methane (material balance of the process and the distribution of products obtained) are given. The results of fractional and radiometric analyses are given in table 4. It was established that under experimental conditions (20-25 atm, 310 C, volume velocity 1150 hr^{-1}, $CO:H_2$ = 1:1) methane behaves as an inert substance, it does not participate in the formation of higher hydrocarbons and does not enter into the

Card 2/3

The use of radioactive carbon for the investigation of the behaviour of methane under conditions of the synthesis of hydrocarbons from CO and H_2 on iron catalysts. (Cont.) 65-6-4/13
reaction of isotope exchange with carbon monoxide, carbon dioxide and hydrocarbons.

There are 5 tables, 1 figure and 29 references, including 10 Slavic.

ASSOCIATION: Petroleum Institute of the Academy of Sciences of the U.S.S.R. (Institut Nefti AN SSSR).

AVAILABLE:

Card 3/3

BUTYUGIN, V. K.

AUTHORS: Kryukov, Yu. B., Butyugin, V. K., Liberov, L. G., Stepanova, N. D., Bashkirov, A. N. 62-11-23/29

TITLE: Synthesis of the Butyl Alcohol Containing the Radioactive Carbon Isotope C^{14} (Sintez butilovogo spirta, soderzhashchego radioaktivnyy izotop ugleroda C^{14})

PERIODICAL: Izvestiya AN SSSR, Otdel.Khim.Nauk, 1957, Nr 11, pp. 1404-1406 (USSR)

ABSTRACT: Here a new method for the synthesis of butyl alcohol, which is tagged by radio-carbon C^{14}, is introduced. This method is characterized by simplicity and a high output of special product. The method consists of two phases: magnesium-organic synthesis of butyric acid with elimination of the latter in the form of sodium-butyrate and the restoration of the salt by lithiumaluminumhydride. The method can be applied for the synthesis of different alcohols containing the radio-carbon C^{14}. It is shown that a synthesis of the tagged butyl alcohol is also possible without preceding elimination of butyric acid by means of immediate restoration of the magnesium-organic complex

$$C_3H_7C(=O)-OMgBr$$

by lithiumaluminumhydride. There are 2 Slavic references.

ASSOCIATION: Petroleum Institute of the AN USSR (Institut nefti Akademii

Card 1/2

Synthesis of the Butyl Alcohol Containing the Radioactive Carbon Isotope C^{14} 62-11-23/29

nauk SSSR)

SUBMITTED: June 2o, 1957

AVAILABLE: Library of Congress

Card 2/2

KRYUKOV, Yu. B., BASHKIROV, A. N., BUTYUGIN, V. K., LIBEROV, L. G., and STEFANOVA, N. D.
(Petroleum Institute AS USSR)

"Intermediate Compounds in the Synthesis of Hydrocarbons and Oxygen-Containing Compounds of Carbon Monoxide and Hydrogen on Iron Catalysts." p. 58.

Isotopes and Radiation in Chemistry, Collection of Papers of the All-Union Conf. Comm. Conf. on Use of Radioactive and Stable Isotopes and Radiation in National Economy and Science, Moscow, Izd-vo AN SSSR, 1958, 360 pp.

This volume publishes the reports of the Chemistry Section of the Conf. of the Comm. Conf on Use of Radioactive and Stable Isotopes and Radiation in Science and the National Economy, sponsored by Acad. Sci. USSR and Main Admin. for Utilization of Atomic Energy under Council of Ministers USSR, Moscow, 4-12 April 1957.

BUTYUGIN, V. K., Cand Chem Sci -- (diss) "Study of certain problems of the mechanism of synthesis from CO and H_2 using radioactive ~~ins~~ carbon." Mos, 1958. 16 pp (Min of Higher Education USSR, Mos Inst of Fine Chem ~~Engineering~~ Technology im M. V. Lomonosov), 120 copies (KL, 15-58, 112)

AUTHORS: Kryukov, Yu. B., Bashkirov, A. N., Butyugin, V. K., Liberov, L. G., Stepanova, N. D. 62-58-5-22/27

TITLE: Conversions of Butylene on the Conditions of Synthesis of CO and H_2 by Way of Molten Iron Catalysts (Prevrashcheniya butilena v usloviyakh sinteza iz CO i H_2 nad plavlenymi zheleznymi katalizatorami)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1958, Nr 5, pp. 642-644 (USSR)

ABSTRACT: The present report is a trial of investigating the ways of conversion of the olefins forming in the process of the synthesis of the hydrocarbons and of the oxygen-containing compounds of CO and H_2. Butylene marked by means of the carbon isotope C^{14} in the state (polozhenii) 1 served as indicator of the behavior of olefin under the conditions given by the synthesis. The experiment has shown that butylene does not participate in the formation of alcohols, as well, as in the formation of highest hydrocarbons (by way of C_9) neither and that it is no intermediate product. Butylene can react with CO and H_2 under the investigated conditions by producing a C_5-hydrocarbon. It also submits to dehydration, oxidation and hydro-

Card 1/2

Conversions of Butylene on the Conditions of Synthesis of CO and H_2 by Way of Molten Iron Catalysts 62-58-5-22/27

cracking. There are 1 figures, 1 table, and 11 references, 9 of which are Soviet.

ASSOCIATION: Institut nefti Akademii nauk SSSR (Petroleum Institute AS USSR)

SUBMITTED: January 2, 1958

1. Hydrogen isotopes--Synthesis 2. Carbon monoxide--Synthesis
3. Ethylenes--Chemical reactions 4. Butylene--Chemical reactions
5. Carbon isotopes (Radioactive)--Applications

Card 2/2

KRYUKOV, Yu.B.; BUTYUGIN, V.K.; LIBEROV, L.G.; STEPANOVA, N.A.; BASHKIROV, A.N.

Synthesis of butyl alcohol containing radioactive carbon C^{14}. Trudy Inst.nefti 12:299-303 '58. (MIRA 12:3)
(Butyl alcohol) (Carbon--Isotopes)

23-119-6-27/56

AUTHORS: Kryukov, Yu. B., Bashkirov, A. N., Butyugin, V. K., Liberov, L. G., Stepanova, N. D.

TITLE: On the Uniformity of the Mechanism of Synthesis of Hydrocarbons and Oxygen Containing Compounds of CO and H_2 (O yedinstve mekhanizma sinteza uglevodorodov i kislorodsoderzhashchikh soyedineniy iz CO + H_2)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 119, № 6, pp. 1152-1155 (USSR)

ABSTRACT: For the synthesis of CO and H_2 different schemes were proposed. According to them both processes mentioned in the title proceed independent of each other in two different ways. (Refs 1-5). Contrary to this fact experimental data exist, which permit the assumption that a uniform mechanism exists in introducing the process of synthesis and in the structure of carbon chains of the aliphatic compounds from CO under the influence of hydrogen. In order to prove that, the authors have experimentally investigated the ways of conversion of alcohols under the real conditions of synthesis, if the primary products of syn-

Card 1/3

On the Uniformity of the Mechanism of Synthesis of Hydrocarbons and Oxygen Containing Compounds of CO and H_2

thesis represented a carbon-alcohol mixture. Butanol marked by C^{14} and methanol, which were added to the gas of synthesis in such quantities that the conditions existing on the surface of the catalyst were not disturbed, served as indicators of the behavior of the alcohols formed of CO and H_2. Molten iron catalysts under high pressure (ca. 150 atmospheres excess pressure) served for this purpose. Figure 1 shows typical results. From figure 2 is to be seen that methanol is much more easily subject to different conversions than butanol. From the totality of the obtained results follows that the processes of synthesis of hydrocarbons and oxygen containing compounds of CO and H_2 are connected with each other. On the molten iron catalysts the aforementioned compounds and the alcohols possess a common source of origin. This is an unstable intermediate complex on the surface of the catalyst, which forms during the primary interaction between CO and H_2. This complex contains C-, H- and O-atoms. It is named C_1 by the authors. It is able to condense with its equals, whereby the formation of the carbon-carbon bond, furthermore that of a new oxygen containing compound with 2 carbon-C_2-atoms

On the Uniformity of the Mechanism of Synthesis of Hydrocarbons and Oxygen Containing Compounds of CO and H_2

is guaranteed. The further growth takes place thanks to the continuous connection of C_1 to the growing complexes C_2, C_3, C_4 and so on. Also the molecules CO and H_2 can be taken up and a further hydration of the growing complexes until the formation of a stable compound (aldehyde, alcohol, olefin, or paraffin) seems to be not impossible. There are 2 figures and 11 references, 3 of which are Soviet.

ASSOCIATION: Institut nefti Akademii nauk SSSR
(Petroleum Institute AS USSR)

PRESENTED: December 26, 1957, by A. V. Topchiyev, Member, Academy of Sciences, USSR

SUBMITTED: December 24, 1957

Card 3/3

2

S/195/60/001/002/006/010
B004/B067

AUTHORS: Kryukov, Yu. B., Bashkirov, A. N., Liberov, L. G., Butyugin, V. K., Stepanova, N. D., Kagan, Yu. B.

TITLE: Conversions of Iron Carbide Under the Conditions of the Synthesis of Hydrocarbons From Carbon Monoxide and Hydrogen

PERIODICAL: Kinetika i kataliz, 1960, Vol. 1, No. 2, pp. 274 - 281

TEXT: The present paper was presented at the All-Union Conference on Organic Catalysis in November 1959. The authors attempted to explain the part played by carbides as intermediate compounds in the synthesis of hydrocarbons. They used a standard iron catalyst with chromium admixture, which was reduced at 1000°C and activated at 300°C and 20 atm with the initial gas mixture CO + H_2 (1 : 1), which contained $C^{14}O$. The catalyst, enriched with radioactive iron carbide, was then treated with pure CO + H_2. The radioactivity of the products formed was then measured. The authors found that mainly the following reactions took place in iron

Card 1/2

carbide (90%): hydrogenation to methane, exchange of C isotopes between CO and carbide. The rate of these reactions is low as compared to that of the synthesis reaction. Of 3000 CO molecules, only one exchanges its carbon; of 3000 CH_4 molecules, only five are formed by carbide hydrogenation. Hence, only 0.03% of the hydrocarbons with $C > 1$ was formed under the action of carbide. These data rebut the hypothesis according to which carbide products are intermediates in hydrocarbon synthesis from CO and H_2. There are 2 figures, 2 tables, and 22 references: 13 Soviet, 5 US, 1 British, and 3 German.

ASSOCIATION: Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petrochemical Synthesis of the AS USSR)

SUBMITTED: January 23, 1960

33496

S/195/61/002/005/023/027
E040/E185

5.1190

AUTHORS: Kryukov, Yu.B., Bashkirov, A.N., Liberov, L.G., Butyugin, V.K., and Stepanova, N.D.

TITLE: On the mechanism of chain growth in the synthesis of organic compounds from CO and H_2 on iron catalysts

PERIODICAL: Kinetika i kataliz, v.2, no.5, 1961, 780-787

TEXT: A brief survey of the previous investigations of the synthesis of organic compounds from CO and H_2 mixtures on cobalt and iron catalysts showed that the mechanism of the chain growth can be visualised either as 1) condensation of oxygen-containing complexes, with separation of water, or 2) the growth of the carbon chain can be assumed as being preceded by the splitting off of oxygen atoms from the carbon monoxide molecule and a subsequent chain growth by the mechanism of polymerisation of methyl radicals. The experimental evidence at present available appears to be somewhat contradictory and for this reason a study was made of the role played in the above synthesis by oxygen-free intermediate complexes of the methyl and hydrocarbon type

Card 1/4

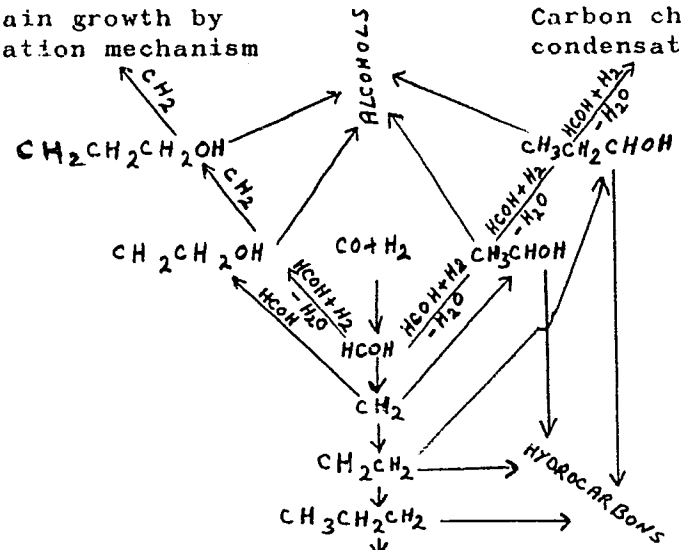
On the mechanism of chain growth...

radicals. The study was made with the help of radioisotope tracer technique using carbon monoxide labelled with C^{14} carbon (9000 pulse/min per mℓ). In the tests, a mixture of $C^{14}O + H_2$ (in the 1:1 by volume ratio) was passed over freshly prepared iron catalyst heated to 295 °C, the reaction was allowed to proceed for various periods and the products were then separated. The radioactivity of the separated hydrocarbons was then plotted against the reaction time and the number of carbon atoms in the synthetised hydrocarbons. The results obtained indicated that both the condensation and polymerisation mechanisms are involved in the synthesis of the products. The actual mechanism prevailing at any stage of the reaction was found to depend on the experimental conditions. A general scheme was formulated for the various reactions that can occur when a stream of carbon monoxide/hydrogen mixture is passed over iron catalyst heated to about 300 °C:

Card 2/4

33496
S/195/61/002/005/023/027
E040/E185

On the mechanism of chain growth ...



Scheme 2

growth by polymerisation mechanism

Card 3/4

On the mechanism of chain growth ....

There are 4 figures, 2 schemes and 20 references: 11 Soviet-bloc and 9 non-Soviet-bloc. The four most recent English language references read as follows:

Ref.12: E.J. Gibson, Chem. and Ind., 649, 1957.
Ref.15: G. Blyholder, P.H. Emmett, J.Phys.Chem., v.63, 962, 1959.
Ref.17: G. Blyholder, P.H. Emmett, J.Phys.Chem., v.64, 470, 1960.
Ref.18: W.K. Hall, R.J. Cokes, P.H. Emmett, J.Amer.Chem.Soc., v.82, 1027, 1960.

ASSOCIATION: Institut neftekhimicheskogo sinteza AN SSSR
(Institute of Petrochemical Synthesis, AS USSR)

Card 4/4

ROZOVSKIY, A.Ya.; BIRYUKOVICH, M.M.; IVANOV, A.A.; LIBEROV, L.G.; BUTYUGIN, V.K.; KAGAN, Yu.B.; KRYUKOV, Yu.B.; BASHKIROV, A.N.

Mechanism of the carbide-forming reaction of fused iron catalysts for synthesis from CO and H_2. Neftekhimiia 3 no.1:97-103 Ja-F '63. (MIRA 16:2)
(Iron catalysts) (Iron carbides)
(Chemistry, Organic—Synthesis)

L 3379-66 EWT(m)/EPF(c)/EWP(j) RM

ACCESSION NR: AP5022090 UR/0138/65/000/008/0009/0012 50 47 B

44 678.044:536.45.096

AUTHOR: Eytingon, I. I.; Krasukhina, M. M.; Kavun, S. M.; Strel'nikova, N. P.; Butyugin, V. K.

TITLE: Thermal conversion of an N-cyclohexylbenzothiazole-2-sulfenamide vulcanization accelerator

SOURCE: Kauchuk i rezina, no. 8, 1965, 9-12

TOPIC TAGS: rubber chemical, organic substituted amide, organic sulfur compound, EPR spectrum, thermochemistry, free radical, vulcanization, reaction mechanism, heat resistance

ABSTRACT: The effect of rubber mixing and vulcanization temperatures on the conversion of sulfenamide Ts [Abstractor's note: Compound corresponds to "Santocure."] and the effect of additives on the thermal stability of this vulcanization accelerator were studied. Heating of the sulfenamide samples at 105-110C for 2 and 6 hours did not produce significant change in the melting of the material except to lower its melting temperature slightly. Thermal decomposition of the sulfenamide at 140 -145 C is preceded by an induction period whose length depends

Card 1/2

L 3379-66
ACCESSION NR: AP5022090

3

on the impurities present. Decomposition is accompanied by spontaneous temperature increase and evolution of hydrogen sulfide and amine. 2-Mercaptobenzothiazole, its cyclohexylamine salt, and 2,2'-dibenzothiazyldisulfide were separated and identified among the resinous decomposition products. The effects of adding these three compounds or sulfur to mixes containing the sulfenamide were studied. Sulfur had the greatest effect on the thermal stability of the accelerator at 140-145 C, and the addition of 1% sulfur on weight of the sulfenamide reduced the induction period from 150 to 10 minutes. Examination of EPR spectra established that the thermal decomposition of this sulfenamide is a radical chain process. The presence of benzothiazolesulfide radicals was indicated. Orig. art. has: 3 figures and 4 equations

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute for the Tire Industry) 44

SUBMITTED: 00 ENCL: 00 SUB CODE:

NR REF SOV: 001 OTHER: 002

Card 2/2 nd

BUVALETS, N. S.

137-1958-1-105

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 17 (USSR)

AUTHORS: Golandskiy, D. B., Buvalets, N. S.

TITLE: Methods of Reducing Losses of Tin in the Concentration of Tailings (Puti snizheniya poter' olova pri obogashchenii shlamov)

PERIODICAL: Kolyma, 1956, Nr 12, pp 29-35

ABSTRACT: A considerable amount of tin is lost in the tailings of the ore-dressing plants of Dal'stroy. Investigations of the millability of the tailings performed by VNII-1 and at the MEKhANOBR Institute, and the experience of the tailings shop at the Lazo Works have demonstrated that considerable amounts of tin may be extracted from the tailings. Preliminary classification of tailings makes it possible to increase tin recovery by as much as 55 percent. Therefore, the separation of tailings into sand and silt fractions, with separate processing of each, must be strongly urged. Engineering procedures recommended for the plants of the "Galimyy" mine for milling tailings by grades and size fractions are described and adduced.

A. Sh.

Card 1/1 1. Tin ores--Processing 2. Mining engineering--USSR

137-58-4-6367

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 5 (USSR)

AUTHOR: Buvalets, N.S.

TITLE: A Test of the Possibility of Concentrating Tin Ores of the Baryllyelakha Deposit (Process Test Nr 2) [Ispytaniye na obogatimost' olovosoderzhashchey rudy mestorozhdeniya Baryllyelakha (Tekhnologicheskaya proba 2)]

PERIODICAL: Tr. Vses. Magadansk. n.-i. in-ta za 1956 g. Magadan, 1957, pp 98-101

ABSTRACT: The main ore minerals used in this test were cassiterite, stannite, sphalerite, galenite, arsenopyrite, chalcopyrite, etc. The SnO_2 content was 0.65 percent. The original size of the aggregates was 2 mm. The test pattern, including four steps in concentration, provided for successive treatment of the ore at the following sizes: -2, -5, -0.2, and -0.1 mm, with prior classification of the material in each stage into the following narrow classes: 2-1; 1-0.5; 0.5 - 0.2; 0.2 - 0.074; 0.074 - 0.040; 0.040 - 0.025; 0.025 - 0.013; -0.013 mm. Aggregates in the 2-1, and 1-0.5 mm sizes were jigged, while those in the 0.5 - 0.2 and 0.2 - 0.074 sizes were concentrated on tables. The -0.074 + 0.013 mm

Card 1/2

137-58-4-6367

A Test of the Possibility of Concentrating Tin Ores (cont.)

material was subjected to the tailings process, providing for sluicing on a continuous procedure. The supplementary fining operations included flotation and magnetic separation. It was established that concentration of this ore specimen by gravitational methods made it possible to obtain conditioned sand (40 percent) and tailings (10 percent) concentrates with overall industrial extraction of 67-68 percent of the Sn in the ore.

A.Sh.

1. Ores--Concentration--Methods 2. Tin--Applications

Card 2/2

SHTUTMAN, M.N.; AVDEYENKO, V.P.; NEUYMIN, Yu.A.; KAS'YANOVA, L.V.; IGNATOVA, M.V.; PEDENKO, V.A.; BUVALITS, A.I.

Precision and reliability of a DFS-10 quantometer at a metallurgical plant. Zav. lab. 31 no.2:247-249 '65. (MIRA 18:7)

1. Magnitogorskiy metallurgicheskiy kombinat.

BUVALKIN, A.K.

Mesozoic tectonic movements in eastern Kazakhstan. Izv. AN Kazakh. SSR. Ser. geol. no.3:35-54 '60. (MIRA 13:11)
(Kazakhstan--Geology)

BUVALKIN, A.K.

Stratigraphy of Jurassic sediments in the Taskomyrsay coal deposit. Uch.zap.Kazakh.un. 37 no.4:46-60 '58. (MIRA 15:4)
(Kara-Tau--Geology, Stratigraphic)

BUVALKIN, A.K.

Cause of splitting of thick coal seams in the Maykyuben' Basin.
Izv.AN KazakhSSR Ser.geol. no.4:70-79 '59. (MIRA 15:4)
(Maykyuben' Basin--Coal geology)

BUVALKIN, A.K.; VLASOV, V.I.

Triassic sediments in southern Kazakhstan. Izv. AN Kazakh.SSR. Ser.geol. no.4:19-30 '61. (MIRA 15:3)
(Kazakhstan--Geology, Stratigraphic)

ABDULKABIROVA, M.A.; ALEKSANDROVA, M.I.; AFONICHEV, N.A.; BANDALETOV, S.M.; BASPALOV, V.F.; BOGDANOV, A.A.; BOROVIKOV, L.I.; BORSUK, B.I.; BORUKAYEV, R.A.; BUVALKIN, A.K.; BYKOVA, M.S.; DVORTSOVA, K.I.; DEMBO, T.M.; ZHUKOV, M.A.; ZVONTSOV, V.S.; IVSHIN, N.K.; KOPYATKEVICH, R.A.; KOSTENKO, N.N.; KUMPAN, A.S.; KURDYUKOV, K.V.; LAVROV, V.V.; LYAPICHEV, G.F.; MAZURKEVICH, M.V.; MIKHAYLOV, A.Ye.; MIKHAYLOV, N.P.; MYCHNIK, M.B.; NIDLENKO, Ye.N.; NIKITIN, I.F.; NIKIFOROVA, K.V.; NIKOLAYEV, N.I.; PUPYSHEV, N.A.; RASKATOV, G.I.; RENGARTEN, P.A.; SAVICHEVA, A.Ye.; SALIN, B.A.; SEVRYUGIN, N.A.; SEMENOV, A.I.; CHERNYAKHOVSKIY, A.G.; CHUYKOVA, V.G.; SHLYGIN, Ye.D.; SHUL'GA, V.M.; EL'GER, E.S.; YAGOVKIN, V.I.; NALIVKIN, D.V., akademik, red.; PERMINOV, S.V., red.; MAKRUSHIN, V.A., tekhn.red.

[Geological structure of central and southern Kazakhstan] Geologicheskoe stroenie TSentral'nogo i IUzhnogo Kazakhstana. Leningrad, Otdel nauchno-tekn.informatsii, 1961. 496 p. (Leningrad. Vsesoiuznyi geologicheskii institut.Materialy, no.41) (MIRA 14:7)

(Kazakhstan--Geology)

BUVALKIN, A.K.

Conditions governing the accumulation of Lower Mesozoic sediments in the Maykyuben' Basin based on some geochemical indexes. Izv. AN Kazakh.SSR. Ser.geol. no.6:27-41 '62. (MIRA 16:5)
(Maykyuben' Basin--Limnology) (Maykyuben' Basin--Geochemistry)

BUVALKIN, A.K.; AZIZOV, T.M.

Trace elements in rocks and coals of Lower Mesozoic sediments in the Maykyuben' Basin and their significance for paleogeography. Izv.AN Kazakh.SSR. Ser.geol.nauk no.4:41-57 '63. (MIRA 16:9)

1. Institut geologicheskikh nauk AN Kazakhskoy SSR, Alma-Ata.

BUVALKIN, A.K., kand. geologo-mineralogicheskikh nauk

The Ili coal basin. Vest. AN Kazakh. SSR 20 no.1:47-58 Ja '64. (MIRA 17:3)

BUVALKIN, A.K.

Stratigraphy of Lower Mesozoic sediments in the Maykyuben' Basin. Izv. AN Kazakh.SSR.Ser.geol.nauk 21 no.6:3-16 N-D '64. (MIRA 18:3)

1. Institut geologicheskikh nauk im. K.I.Satpayeva AN KazSSR, Alma-Ata.

BUVALKIN, A.K.

Paleogeographic conditions governing Lower Mesozoic sedimentation in the Ili Depression. Izv.AN Kazakh. SSR.Ser.geol. 22 no.5:18-34 S-O '65.

(MIRA 18:12)

1. Institut geologicheskikh nauk imeni K.I.Satpayeva, g. Alma-Ata.

CA

Kinetics of the hydrogenation of dimethylethynylcarbinol on a skeleton nickel catalyst. D. V. Sokol'skii and L. A. Buvalkina. (S. M. Kirov Kazakh State Univ., Alma-Ata). *Doklady Akad. Nauk S.S.S.R.* 73, 503–6(1950).—Absorption of H_2, at 0°, by $Me_2(CH{:}C)COH$ (I) in soln. in 96% alc., on H_2-satd. Raney Ni prepd. by leaching a Ni 30–Al 70% alloy, follows a zero-order rate law until $^2/_3$ of the theoretical amt. of H_2 is absorbed; after that, the kinetic curve has a sharp bend and the rate falls linearly with time. The same kinetics is observed at 25°. Diffusion ceases to play a detg. role above a shaking speed of about 520/min. at 0° and 580/min. at 25°. The apparent activation energies, at shaking speeds of 210, 330, 409, 580, 700/min., are, resp., 2960, 3477, 3747, 4733, 4733 cal./mole. Threefold increase of the concn. of I merely raises the min. shaking speed corresponding to purely kinetic reaction, from 520 to 580/min. (at 0°); at equal shaking speeds, the rate of hydrogenation does not appreciably change with the concn. In the kinetic range, the rate of hydrogenation increases proportionally to the amt. of catalyst; the limiting speed of shaking corresponding to purely kinetic reaction remains unchanged on 3-fold variation of the amt. of catalyst. N. Thon

USSR/Chemistry - Acetylene Derivatives Apr 51
Hydrogenation

"Kinetics of the Hydrogenation of Dimethylacetylenylcarbinol on a Skeleton Nickel Catalyst," D. V. Sokol'skiy, L. A. Buvalkina, Kazakh State U imeni S. M. Kirov, Alma-Ata

"Zhur Fiz Khim" Vol XXV, No 4, pp 495-503

Studies kinetics of reaction of dimethylacetylenylcarbinol with H in 96% EtOH and in H_2O over skeleton Ni catalyst. Finds reaction to be of 0 order, independent of temp, amt of substance, solvent.

LC 18OT33

USSR/Chemistry - Acetylene Derivatives (Contd) Apr 51

Detd: boundary of "kinetic" and "diffusion" regions in reaction; activation energy in each; change of boundary due to temp, amt of agitation, solvent; rate of reaction (over-all and in both regions) due to amt of agitation and catalyst.

Translation W-21169

BUVALKINA, L. A.

LC 18OT33

USSR/Chemistry - Hydrogenation, Apr 52
Catalysts

"The Kinetics of Hydrogenation of Cinnamic Acid," D. Sokol'skiy, L. Buvalkina, A. Bukhman, Chair of Catalysis and Tech Chem, Kazakh State U imeni S. M. Kirov

"Zhur Obshch Khim" Vol XXII, No 4, pp 558-563

Investigated the effect of stirring on the kinetics of hydrogenation of cinnamic acid over skeleton nickel in a soln of 96% ethyl alc. Found that hydrogenation of cinnamic acid proceeds in the "kinetic" region and does not depend on the increase in the intensity of stirring, starting from 300 oscillations per min of the vessel. The reaction on cinnamic acid is of the 1st order. The energy of activation of the process is 9,000 ± 1,000 cal/mol.

224T28

BUVALKINA, L.

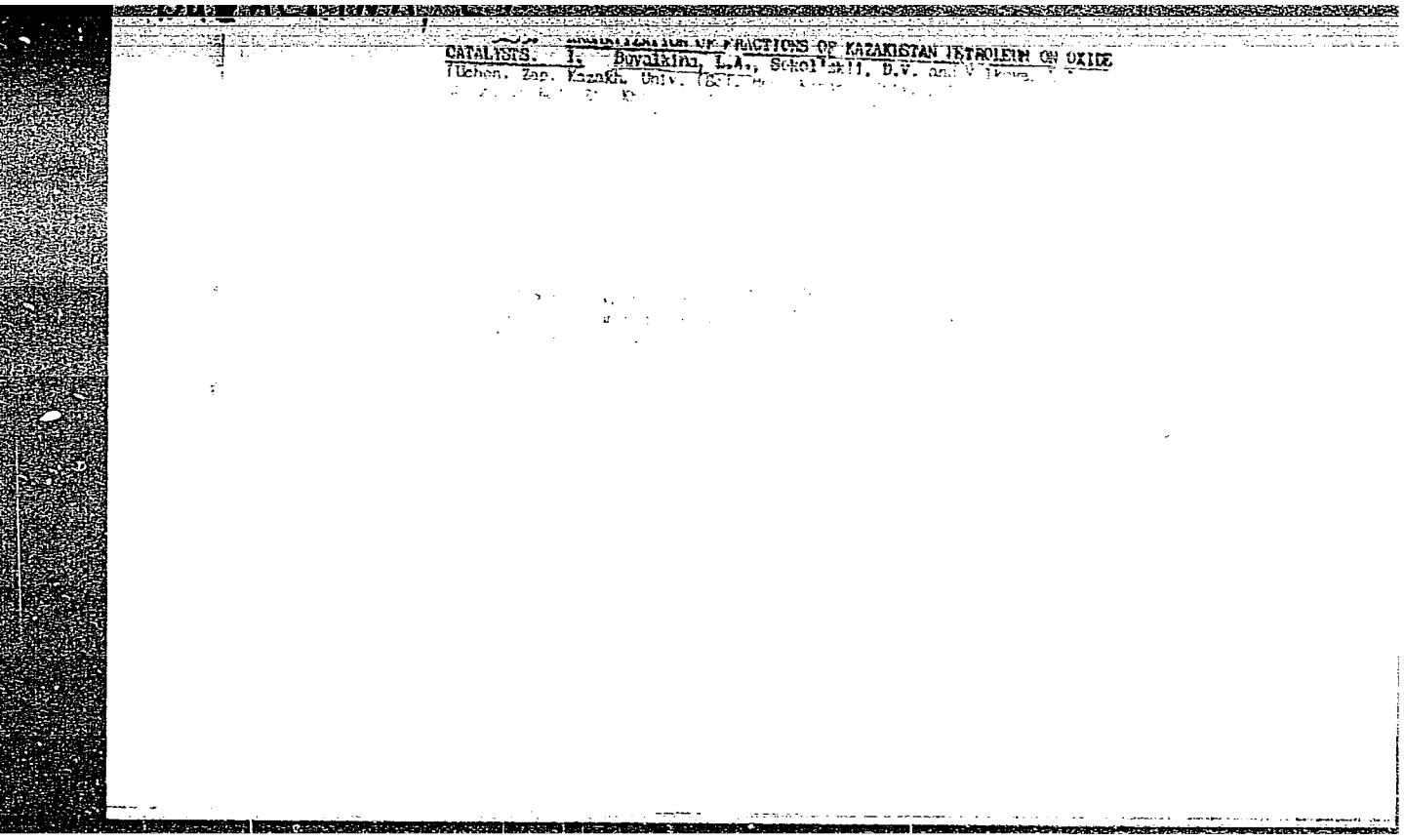
224T28

BUVALKINA, L. A., SOKOL'SKIY, D. V. and NOSKOVA, N. F.

"Lepsinsk Bentonite Clay as a Cracking Catalyst".
Izv. AN Kaz SSR, Ser. Khim., No. 7, pp 39-48, 1953.

Investigated the relationship between the catalytic properties of Lepsinsk bentonite clay and the conditions of preparing the catalyst, samples. The clay was activated by a method proposed by Moldavskiy and Bezdol', i.e., treatment with 20% HCl followed by washing and drying. The first sample was broken into small pieces and heated to the reaction temperature in the catalysis tube. The second sample was pulverized, saturated with H_2O, compressed at 300 atm, dried, and broken into granules. The third sample was satruated with 1% V_2O_5, dried at 50°, broken up, and reduced in a stream of H_2 at 500°. The activity of the clay catalyst was found to be independent of the manner in which it was prepared. (RZhKhim, No 4, 1955)

SO: Sum No 884, 9 Apr 1956



CATALYSTS. I. [illegible] OF FRACTIONS OF KAZAKHSTAN PETROLEUM ON OXIDE
Uchen. Zap. Kazakh. Univ. [illegible]

BUVALKINA, L. A.
USSR/Chemistry

Card 1/1

Authors : Buvalkina, L. A.; and Sokol'skiy, D. V.

Title : Kinetics of hydrogenation of benzyl cinnamate over a skeleton nickel catalyst

Periodical : Zhur. Ob. Khim. 24, Ed. 5, 833 - 839, May 1954

Abstract : The hydrogenation of benzyl cinnamate at room temperature over a skeleton nickel catalyst results in the discontinuation of the O-C bond and the reaction products in this case are toluene and hydrocinnamic acid. The rate of hydrogenation of the benzyl ether, up to the point of absorption of 56% of the hydrogen, is relatively high and followed by the hydrogenation of the - CH = CH - bond; hydrogenolysis occurs at lower rates. The apparent hydrogenolysis energy at temperatures of 25 - 40° is 13950 cal/mol. At high temperatures (from 25 - 50°) the thermal coefficient of hydrogenation is small and the apparent activation energy drops to zero. Five USSR references. Tables, Graphs.

Institution : The S. M. Kirov State University, Alma-Ata, Kaz-SSR

Submitted : November 28, 1953

BUVALKINA, L. A.

USSR/ Chemistry Hydrogenation

Card : 1/1

Authors : Buvalkina, L. A., and Sokol'skiy, D. V.

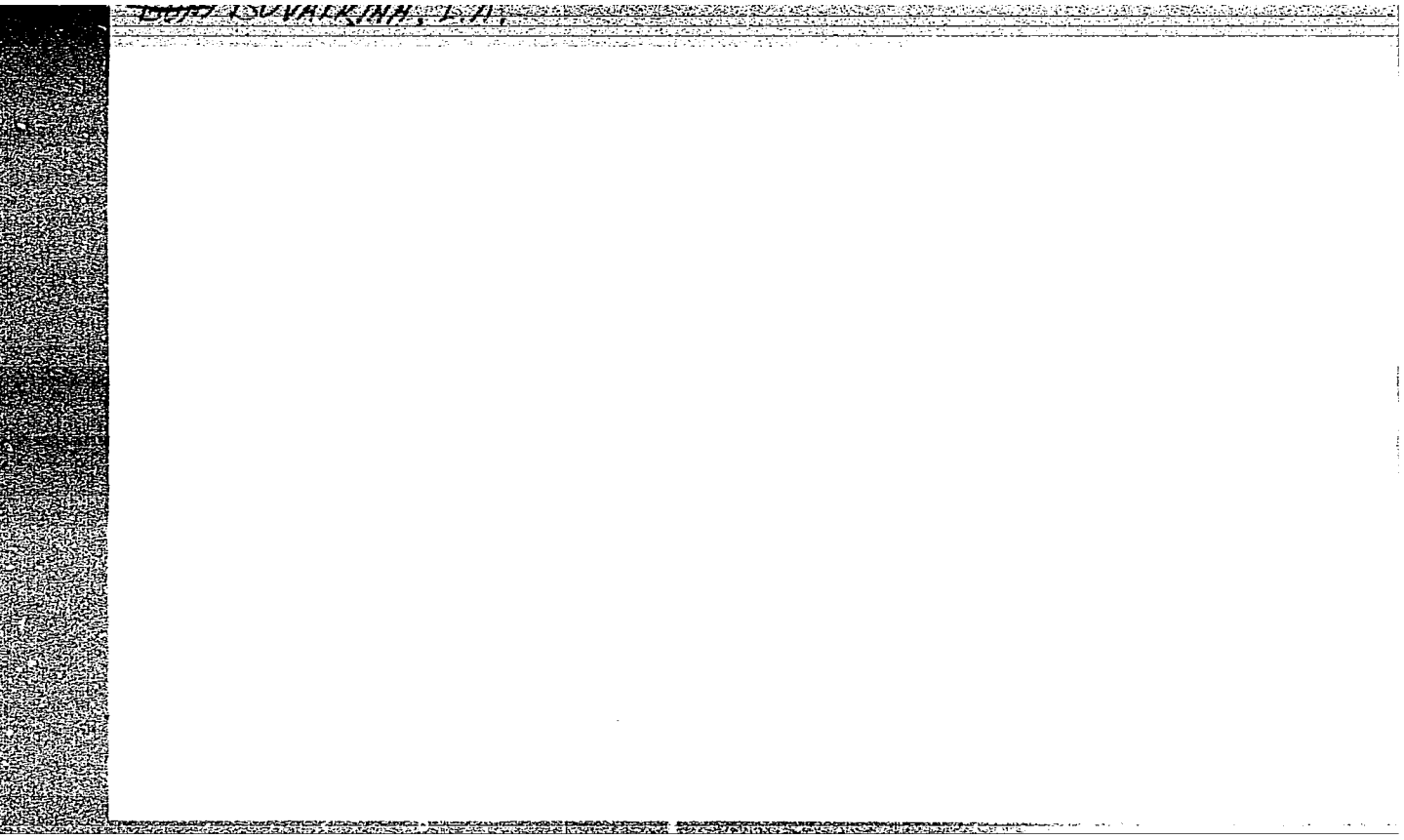
Title : Kinetics of hydrogenation of cinnamic alcohol over skeleton nickel

Periodical : Zhur. fiz. khim. 28, Ed. 6, 961 - 969, June 1954

Abstract : The kinetics of hydrogenation of cinnamic alcohol over a skeleton Ni-catalyst was investigated at temperatures of 0.25 and 40°C, and the zero-order of reaction was established at the point where the theoretically required amount of H is completely absorbed. Other factors affecting the rate of hydrogenation, are listed. Progressive addition of Pt to the Ni catalyst changes the reaction order from zero to one. The order of hydrogenation reaction during sufficiently large Pt concentrations, is explained. Ten references: 8 USSR, 1 USA and 1 French. Tables; graphs.

Institution : The S. M. Kirov Kazakh State University, Alma-Ata

Submitted : April 16, 1951



BUVALKINA, L.A.

PHASE I BOOK EXPLOITATION SOV/3537

Akademiya nauk Kazakhskoy SSR. Institut khimicheskikh nauk

Trudy, t. 5 (Transactions of the Institute of Chemical Sciences, Kazakh SSR, Academy of Sciences, Vol 5) Alma-Ata, Izd-vo Akademii nauk Kazakhskoy SSR, 1959. 154 p. 1,000 copies printed.

Ed.: M.D. Zhukova; Tech. Ed.: Z.P. Rotokina; Editorial Board of Series: D.V. Sokol'skiy (Resp. Ed.), V.G. Gutsalyuk, and B.V. Suvorov (Resp. Secretary).

PURPOSE: This collection of articles is intended for personnel of scientific research laboratories, laboratories of industrial enterprises, and faculty members of schools of higher education.

COVERAGE: The collection reviews problems of liquid-phase catalytic hydrogenation to upgrade and reactivate various products. Hydrogenation of unsaturated bonds of various types, adsorption of hydrogen on different catalysts, chromatographic separation of mixtures, and the effect of halogen salts of alkali metals on the rate of hydrogenation reactions promoted by various skeleton catalysts are described. Conditions of catalytic hydrogenation of natural fat, sunflower oil, and such synthetic products as esters of high-molecular fatty acids are set out. Dehydration of the butane fraction carried out in combination with isomerization is analyzed. Principles of selecting catalysts and regenerating them are reviewed and the formation of adsorption potentials on metal catalysts is explained. Each article presents conclusions drawn on the basis of experimental findings. References accompany most of the articles.

Card 4/5

5.3200
5.1190
~~5(3)~~

6844

AUTHORS: Buvalkina, L.A., Pavlov, G.V., Sokol'skiy, D.V.

S/153/59/002/06/022/029
B115/B000

TITLE: The Dehydroisomerization of n-Butane on Mixed Chromous Catalysts

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 6, pp 930-937 (USSR)

ABSTRACT: The present paper deals with the possibility of simultaneous hydrogenation and isomerization of n-butane in the presence of a number of oxide catalysts. This reaction is very important in the production of high-octane components for motor fuels as well as of synthetic rubber. Cr_2O_3 - Al_2O_3, an aluminosilicate catalyst worked-up by cracking, Cr_2O_3 on worked-up aluminosilicate, and Cr_2O_3 on silica gel were used as catalysts for the dehydroisomerization of n-butane. Experiments were made in a unit with continuous flow, and the initial raw materials and reaction products were analyzed in a Podbil'nyak apparatus. The industrial n-butane fraction contained, in addition to n-butane (about 70 to 85%), also butene (5% at most), isopentane, and n-pentane (20% and more). About 150 experiments were

Card 1/4

The Dehydroisomerization of n-Butane on Mixed Chromous Catalysts

S/153/59/002/06/022/029
B115/B000

made with the catalysts mentioned, where the temperatures (from 500 to 700°) and the rates of flow (from 100 to 2,000 cm^3 per minute per 100 cm^3 of the catalyst) were varied. The catalyst was recovered by air at 500°. The yields of end products (butene and isobutane) were related to the quantity of n-butane reacted and passed, and to the raw material passed (sum of n-butane and pentanes). The results of an experiment and the calculation of the material balance for dehydroisomerization are given (Table 1) as well as conditions of catalytic isomerization and dehydrogenation of n-butane giving maximum yields of isobutane and butene (Table 2). This happened when the sum of isobutane and butene was 37.4%, the rate of flow of the raw material 700 cm^3 per minute, and the temperature 580°. When a catalyst consisting of worked-up aluminasilicate was used, the total yield of isobutane and butene was, for a rate of flow of the raw material of 200 cm^3 per minute and a temperature of 600°, 26.1% (Table 3). When Cr_2O_3 on worked-up aluminosilicate was used, the total yield of isobutane and butene was, for 1,000 cm^3 per minute and 570°, 32.2% (Table 4), and, finally, when Cr_2O_3 on silica gel was used, at 600 cm^3 per

4

minute and 600°, the total yield of isobutane and butene was 56.6% (Table 5). In table 6, the dehydrogenation and isomerizing characteristics of the groups of oxide catalysts are compared. It is shown that, at a low n-butane content (58.6%) in the raw material, isobutane and butene may form on Cr_2O_3 on aluminosilicate at the expense of the conversion of pentanes. The presence of more than 5% isobutane and pentene in the raw material reduces the yields of these compounds on the dehydroisomerization of industrial n-butane fractions, if Cr_2O_3 on aluminosilicate is used. At temperatures above 700°, b-butane is simultaneously pyrolyzed on the dehydroisomerization catalysts to give C_1 to C_3 hydrocarbons. When passed over the catalysts investigated, 50 to 70% of n-butane is converted. The low quantity of liberated hydrogen (2%, at most) is explained by its consumption to reduce chromic oxide to lower oxides which is not in disagreement with the results obtained by Obolentsev (Ref 5), Balandin, Zelenskiy and others (Ref 8). This paper was lectured on the All-Union Conference on "Methods Used to Synthetize Initial Products for the Preparation of

67844
S/153/59/002/06/022/029
B115/B000

The Dehydroisomerization of n-Butane on Mixed Chromous Catalysts

High Polymers" (Vsesoyuznaya konferentsiya "Puti sinteza iskhodnykh produktov dlya polucheniya vysokopolimerov") held in Yaroslavl' from September 29 to October 2, 1958. The student Z.F.Prusakova took part in the experiments. There are 6 tables and 14 references, 12 of which are Soviet.

ASSOCIATION: Kazakhskiy gosudarstvennyy universitet imeni S.M.Kirova (Kazakhskiy State University imeni S.M.Kirov)

Card 4/4

42666

S/850/62/008/000/004/004
B119/B101

11.0140

AUTHORS: Buvalkina, L. A., Dauletov, B.

TITLE: Dehydro-cracking of diesel fuel over chromium alumosilicate catalysts

SOURCE: Akademiya nauk Kazakhskoy SSR. Institut khimicheskikh nauk. Trudy. v. 8. Alma-Ata, 1962. Kataliticheskiy sintez monomerov. 115-127

TEXT: Cracking tests were made with diesel fuel of specific gravity d_4^{20} = 0.8472 over catalysts produced as follows: 150 g bentonite from South Kazakhstan was impregnated with 300 ml of 5% (catalyst I), 8% (II) or 10% (III) ammonium bichromate solution, dried, and reduced in a current of H_2 at 500°C. 40 ml of raw material was made to react at a rate of addition of 0.8 liters per liter of catalyst per hour. With the use of I, the olefin yield was 2% in the gaseous phase and 13% in the gasoline phase at a reaction temperature of 450°C, and 28% in the gaseous phase and 35% in gasoline at 650°C. At 510°C, the yield of gasoline fraction

Card 1/2

BUVALKINA, L.A.; BIZHANOVA, N.B.

Preparation of catalysers for transformation of hydrocarbons of diesel fuels on the basis of bentonites of southern Kazakhstan. Vest. AN Kazakh. SSR 19 no.7:32-40 Jl '63. (MIRA 17:2)

SOKOL'SKIY, D.V., akademik; BUVALKINA, L.A., kand. khim. nauk

Preparing catalysts for controlled cracking from the bentonites of Kazakhstan. Vest. AN Kazakh. SSR 20 no.12:3-14 D '64 (MIRA 18:2)

1. AN KazSSR (for Sokol'skiy).

BUVALKO, Yu.

Results of self-financing. Za rul.18 no.11 N'60. (MIRA 13:11)

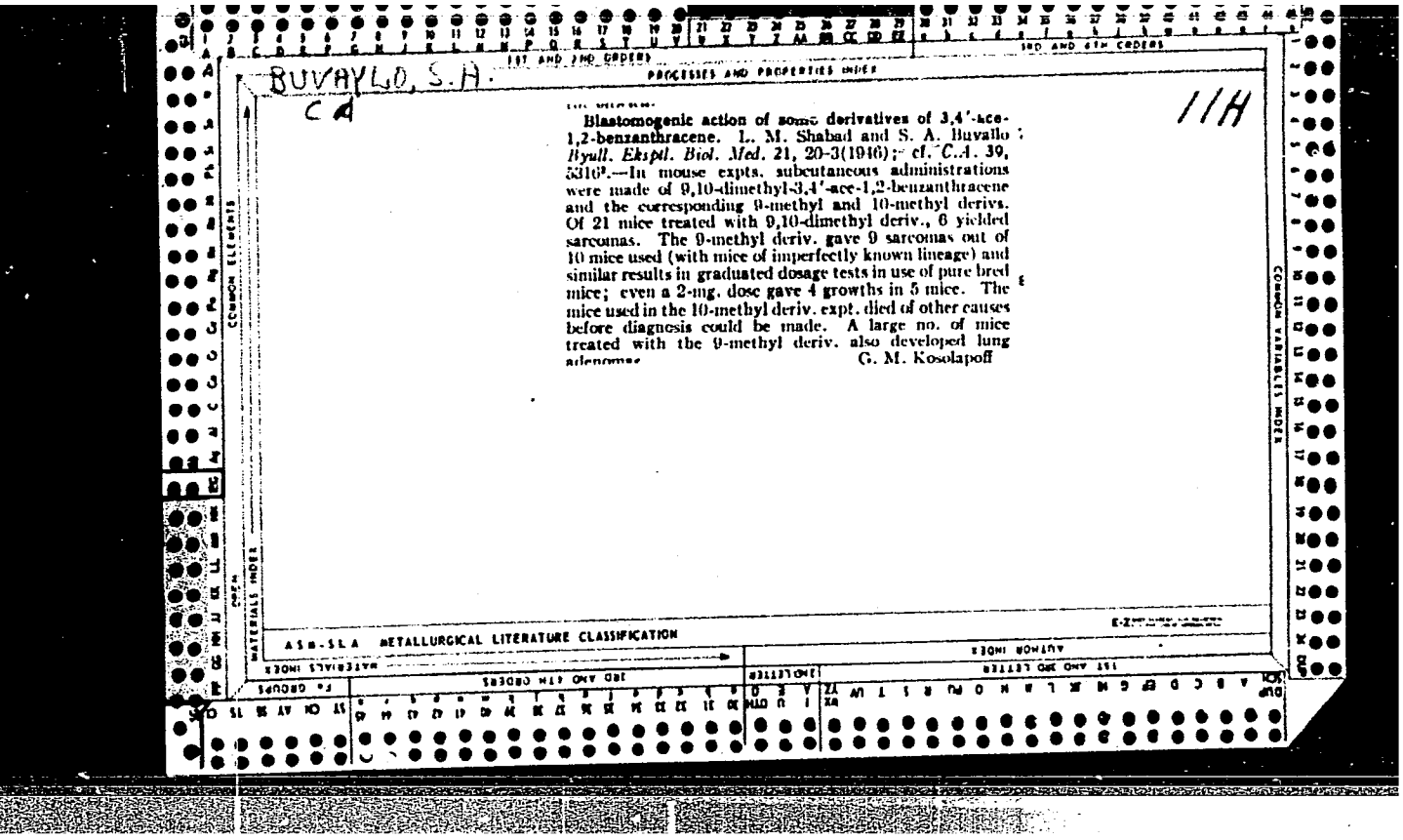
1. Nachal'nik Taganrogskogo avtomotokluba.
(Taganrog--Motor vehicles--Societies, etc.)

RAMAN, C.V., Sir; BUVARI, Andras, dr. [translator]

Christian Huygens and the theory of wave of the light. Fiz szemle 10 no.7:202-205 Jl '60.

BUVAYLO, N.

Dangerous bumper. Za bezop.dvizh. 3 no.9:4-5 S '60. (MIRA 13:9)
(Automobiles--Design and construction)



BUVAYLO, S.A.

CA

11H

Blastomogenic action of some derivatives of 3,4'-ace-1,2-benzanthracene. L. M. Shabad and S. A. Buvallo; *Byull. Eksptl. Biol. Med.* 21, 20-3(1946); cf. *C.A.* 39, 5316[9].—In mouse expts. subcutaneous administrations were made of 9,10-dimethyl-3,4'-ace-1,2-benzanthracene and the corresponding 9-methyl and 10-methyl derivs. Of 21 mice treated with 9,10-dimethyl deriv., 6 yielded sarcomas. The 9-methyl deriv. gave 9 sarcomas out of 10 mice used (with mice of imperfectly known lineage) and similar results in graduated dosage tests in use of pure bred mice; even a 2-mg. dose gave 4 growths in 5 mice. The mice used in the 10-methyl deriv. expt. died of other causes before diagnosis could be made. A large no. of mice treated with the 9-methyl deriv. also developed lung adenomas. G. M. Kosolapoff

USSR/Medicine - Cancer Mar/Apr 1948
Medicine - Breast, Cancer

"The Morphology of Mammary Gland Cancer in Mice of Breed A," S. A. Buvaylo, Lab of Oncol, Inst of Normal and Path Morph, Acad Med Sci USSR, 5½ pp

"Arkhiv Patologii" Vol X, No 2

Records results of observations obtained over three-year period. Discusses advanced cancer; adenocarcinoma; cystoid adenocarcinoma; adenocancroid; mammary glands of mice not yet having tumors. Submitted 1947.

66T87

BUVAYLO, S. A.

36408. Stoletiye so vremeni osnovaniya kafedry patologicheskoy anatomii pervogo moskovskogo ordena Lenina meditsinskogo instituta (1849-1949). Arkhiv pato-logii, 1949, v-p. 6,S3-22- Bibliogr: S. 22

BUVAYLO, S. A. I STRUKOV, A. I.

SO: Letopis' Zhurnal'nykh Statey, No. 49, 1949

BUVAYLOV, S.A.

Smooth muscles of the human lung in normal and in certain pathological conditions. Probl. tuberk., Moskva no.1:3-10 Jan-Feb 1953. (CIML 24:2)

1. Of the Department of Pathological Anatomy (Head -- Academician A. I. Abrikosov; Scientific Supervisor -- A. I. Strukov, Corresponding Member AMS USSR), First Moscow Order of Lenin Medical Institute.

KONSTANTINOVA, N.P., BUVAYLO, S.A. (Moskva)

Pathological anatomy of the tonsils in chronic tonsillitis and rheumatism in children. [with summary in English]. Arkh.pat. 20 no.7:22-26 '58 (MIRA 11:9)

1. Iz kliniki ukha, gorla, nosa (dir. - prof. A.G. Likhachev) i i kafedry patologicheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. A.I. Strukov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

(RHEUMATIC FEVER, pathology
tonsils (Rus))
(TONSILS, pathology,
in rheum. fever & chronic tonsillitis (Rus))

AUTHORS: Buvaylo, S. A., Meyerson, F. Z.

TITLE: Histochemical Facts on the Relation Between Glycogen and Fat in the Myocardium in the Case of Experimental Cardiac Defect (Gistokhimicheskiye dannyye o sootnoshenii glikogena i zhira v miokarde pri eksperimental'nom poroke serdtsa)

20-118-4-55/61

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 4, pp. 823-825 (USSR)

ABSTRACT: The second author proved in a previous publication (reference 1) that after an aortic stenosis the concentration of glycogen in the myocardium is decreased 2-3 fold during the first three days, then it is restored gradually and reaches its normal state within 1,5 to 3 months. In the present paper the problem mentioned in the title is studied in the muscle of the left ventricle of the heart soon (within 48 hours, first group) after creating an aortic stenosis, and within 3 months after that (second group). The methodology was described previously (reference 1). A silk ligature was put on. As test animals served rabbits. The third group (control) was formed by 6 animals not operated on. The morphological picture of the myocardium of the control animals is shown in figure 1. In the

Card 1/4

first test group the relative weight of the heart was increased up to 0,30% - 0,32% (compared to 0,24% - 0,27% in normal animals). Macroscopically the enlargement and the extension of the cavities became visible. The histological picture is described. Fat is distributed irregularly in the myocardium, most of it is deposited in fiber groups beside larger veins (figure 2). There is almost no glycogen in the central layer of the myocardium (figure 1). So 48 hours after the operation the histochemically ascertainable content of glycogen in the myocardium was rapidly decreased. As a parallel a distinct fat dystrophy appeared. The hearts of the animals that were killed after 3 months (second group) were strongly enlarged. The septum of the left ventricle had become much thicker. The relative weight of the heart was 0,42% -0,60%, that is 100% above normal. A histological and a histochemical picture of the distribution of glycogen are given. No fat was found (dying with Sudan III). Thus the glycogen content is renormalized after a longer period after creating an aortic stenosis, whilst the fat dystrophy is decreased. The lowering of the glycogen content and the simultaneous fat deposit shortly after creating a cardiac defect are a subsequent effect of the relative hypoxy.

Histochemical Facts on the Relation Between Glycogen and Fat in the Myocardium in the Case of Experimental Cardiac Defect 20-118-4-55/61

Later on the phenomena of this hypoxy recede in spite of the lasting hyperfunction of the heart. This takes place as a consequence of the mobilization of the corona circulation, and of the activating of the oxidative ferment systems. These safeguard the increase of the aerobic resynthesis of the adenosin triphosphoric acid. So the histochemically ascertainable glycogen content is restored, and the fat deposits in the myocardium recede. The problem has not yet been solved whether these two phenomena only show a similar course or whether they are intimately connected by a certain biochemical mechanism. There are 3 figures and 5 references, 3 of which are Soviet.

ASSOCIATION: Central Institute for Postgraduate Instruction of Physicians (Tsentral'nyy institut usovershenstvovaniya vrachey). First Medical Institute imeni I. M. Sechenov , Moscow (Pervyy Moskovskiy meditsinskiy institut im. I. M. Sechenova)

PRESENTED: August 8, 1957, by L. A. Orbeli, Academician

SUBMITTED: August 1, 1957

Card 3/4

Histochemical Facts on the Relation Between Glycogen and Fat in the Myocardium in the Case of Experimental Cardiac Defect

20-118-4-55/61

AVAILABLE: Library of Congress

Card 4/4

BUVAYLO, S.A. (Moskva)

Method for a quantitative evaluation of atherosclerosis. Arkh. pat. 22 no.5:83-84 '60. (MIRA 13:9)

1. Iz kafedry patologicheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. A.I. Strukov) I Moskovskogo ordena Lenina meditsinskoto instituta im. I.M.Sechenova.
(ARTERIOSCLEROSIS)

BUVAYLO, S. A., OREKHOVICH, V. N., STRUKOV, A. I., PLOTNIKOVA, N. Ye., (USSR)

The Specific Action of Glycerol on Blood Vessel Walls.

report presented at the 5th Int'l.
Biochemistry Congress, Moscow, 10-16 Aug. 1961

BUVAYLO, S. A. (Moskva)

Case of congenital defect of the cardiovascular system complicated by diffuse arteritis. Arkh. pat. no.9:65-68 '61. (MIRA 15:6)

1. Iz kafedry patologicheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. A. I. Strukov) I Moskovskogo ordena Lenina meditsinskogo instituta.

(HEART--ABNORMITIES AND DEFORMITIES)
(ARTERIES--DISEASES)

PLOTNIKOVA, N. Ye., mladshiy nauchnyy sotrunik; BUVAYLO, S.A., assistent; OREKHOVICH, V.N., prof.; STRUKOV, A.I., prof.

Changes in the aorta under the influence of glycerin. Trudy 1-go MMI 22:239-248 '63 (MIRA 18:2)

BUVAYLO, V.; CHERNYAYEV, P.; SHOKHOV, K.

In honor of the 45th anniversary of the Great October. Collectives of communist labor of the Novomoskovsk and Tula Milling Combines and the Omsk Groat Plant. Muk.-elev. prom. 28 no.11:3-6 N '62. (MIRA 16:2)

1. Direktor Novomoskovskogo mel'nichnogo kombinata (for Buvaylo).
2. Direktor Tul'skogo mel'nichnogo kombinata No.1 (for Chernyayev).
3. Direktor Omskogo krupozavoda (for Shakhov).

(Flour mills)

BUYALOV, N.I.; VASIL'YEV, V.G.; YEROFEYEV, N.S.; KALININ, N.A.; KLESHCHEV, A.I.; KUDRYASHOVA, N.M.; L'VOV, M.S.; SIMAKOV, S.N.; YELIN, N.D., nauchnyy red.; CHARYGIN, M.M., nauchnyy red.; TOKAREVA, T.N., ved. red.; MITROFANOVA, G.M., tekhn. red.

[Method for evaluating the prospective oil and gas reserves] Metodika otsenki prognoznykh zapasov nefti i gaza. Leningrad, Gostoptekhizdat, 1962. 81 p. (MIRA 16:3)
(Petroleum geology) (Gas, Natural--Geology)